Christian Griebler

List of Publications by Year
in descending order

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103 papers	5,244 citations	81743 39 h-index	91712 69 g-index
108 all docs	108 docs citations	108 times ranked	4451 citing authors

#	Article	IF	Citations
1	Stable isotope fractionation analysis as a tool to monitor biodegradation in contaminated acquifers. Journal of Contaminant Hydrology, 2004, 75, 215-255.	1.6	390
2	Present state and future prospects for groundwater ecosystems. Environmental Conservation, 2003, 30, 104-130.	0.7	278
3	Groundwater ecosystem services: a review. Freshwater Science, 2015, 34, 355-367.	0.9	272
4	Biodegradation: Updating the Concepts of Control for Microbial Cleanup in Contaminated Aquifers. Environmental Science & Technology, 2015, 49, 7073-7081.	4.6	211
5	Combined Application of Stable Carbon Isotope Analysis and Specific Metabolites Determination for Assessing In Situ Degradation of Aromatic Hydrocarbons in a Tar Oil-Contaminated Aquifer. Environmental Science & Technology, 2004, 38, 617-631.	4.6	198
6	Depth-Resolved Quantification of Anaerobic Toluene Degraders and Aquifer Microbial Community Patterns in Distinct Redox Zones of a Tar Oil Contaminant Plume. Applied and Environmental Microbiology, 2008, 74, 792-801.	1.4	183
7	Anaerobic degradation of polycyclic aromatic hydrocarbons. FEMS Microbiology Ecology, 2004, 49, 27-36.	1.3	170
8	Scientists' Warning on the Conservation of Subterranean Ecosystems. BioScience, 2019, 69, 641-650.	2.2	170
9	Effects of thermal energy discharge on shallow groundwater ecosystems. FEMS Microbiology Ecology, 2009, 68, 273-286.	1.3	131
10	High-resolution monitoring of biogeochemical gradients in a tar oil-contaminated aquifer. Applied Geochemistry, 2008, 23, 1715-1730.	1.4	125
11	Current developments in groundwater ecologyâ€"from biodiversity to ecosystem function and services. Current Opinion in Biotechnology, 2014, 27, 159-167.	3.3	123
12	Long-distance electron transfer by cable bacteria in aquifer sediments. ISME Journal, 2016, 10, 2010-2019.	4.4	107
13	Enhanced biodegradation by hydraulic heterogeneities in petroleum hydrocarbon plumes. Journal of Contaminant Hydrology, 2009, 105, 56-68.	1.6	94
14	The potential use of fauna and bacteria as ecological indicators for the assessment of groundwater quality. Journal of Environmental Monitoring, 2010, 12, 242-254.	2.1	93
15	First attempts towards an integrative concept for the ecological assessment of groundwater ecosystems. Hydrogeology Journal, 2009, 17, 23-35.	0.9	92
16	Spatio-temporal patterns of microbial communities in a hydrologically dynamic pristine aquifer. FEMS Microbiology Ecology, 2012, 81, 230-242.	1.3	91
17	Biogeochemical and Isotopic Gradients in a BTEX/PAH Contaminant Plume: Model-Based Interpretation of a High-Resolution Field Data Set. Environmental Science & Technology, 2009, 43, 8206-8212.	4.6	90
18	Ecological assessment of groundwater ecosystems â€“ Vision or illusion?. Ecological Engineering, 2010, 36, 1174-1190.	1.6	87

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19	Fundamental research questions in subterranean biology. Biological Reviews, 2020, 95, 1855-1872.	4.7	86
20	High Resolution Analysis of Contaminated Aquifer Sediments and Groundwaterâ€"What Can be Learned in Terms of Natural Attenuation?. Geomicrobiology Journal, 2010, 27, 130-142.	1.0	85
21	Mixing-controlled biodegradation in a toluene plume â€" Results from two-dimensional laboratory experiments. Journal of Contaminant Hydrology, 2008, 96, 150-168.	1.6	81
22	Isotopic Fractionation by Transverse Dispersion: Flow-through Microcosms and Reactive Transport Modeling Study. Environmental Science & Technology, 2010, 44, 6167-6173.	4.6	78
23	Thiobacillus thiophilus sp. nov., a chemolithoautotrophic, thiosulfate-oxidizing bacterium isolated from contaminated aquifer sediments. International Journal of Systematic and Evolutionary Microbiology, 2009, 59, 583-588.	0.8	76
24	A Multitracer Test Proving the Reliability of Rayleigh Equation-Based Approach for Assessing Biodegradation in a BTEX Contaminated Aquifer. Environmental Science & Technology, 2006, 40, 4245-4252.	4.6	66
25	Potential impacts of geothermal energy use and storage of heat on groundwater quality, biodiversity, and ecosystem processes. Environmental Earth Sciences, 2016, 75, 1.	1.3	66
26	Identification of intermediates formed during anaerobic benzene degradation by an ironâ€reducing enrichment culture. Environmental Microbiology, 2008, 10, 1703-1712.	1.8	63
27	Incorporating ecological perspectives in European groundwater management policy. Environmental Conservation, 2004, 31, 185-189.	0.7	61
28	Anaerobic Cometabolic Transformation of Polycyclic and Heterocyclic Aromatic Hydrocarbons: Evidence from Laboratory and Field Studies. Environmental Science & Technology, 2006, 40, 4165-4173.	4.6	58
29	Stable carbon isotope fractionation during aerobic and anaerobic transformation of trichlorobenzene. FEMS Microbiology Ecology, 2004, 48, 313-321.	1.3	55
30	Metabolites Indicate Hot Spots of Biodegradation and Biogeochemical Gradients in a High-Resolution Monitoring Well. Environmental Science & Technology, 2011, 45, 474-481.	4.6	55
31	Geochemistry of Dissolved Organic Matter in a Spatially Highly Resolved Groundwater Petroleum Hydrocarbon Plume Cross-Section. Environmental Science & Technology, 2016, 50, 5536-5546.	4.6	55
32	Molecular change of dissolved organic matter and patterns of bacterial activity in a stream along a land-use gradient. Water Research, 2019, 164, 114919.	5.3	50
33	Antagonistic Microbial Interactions: Contributions and Potential Applications for Controlling Pathogens in the Aquatic Systems. Frontiers in Microbiology, 2017, 8, 2192.	1.5	48
34	New light in the dark - a proposed multidisciplinary framework for studying functional ecology of groundwater fauna. Science of the Total Environment, 2019, 662, 963-977.	3.9	47
35	Two-dimensional flow-through microcosms â€" Versatile test systems to study biodegradation processes in porous aquifers. Journal of Hydrology, 2009, 369, 284-295.	2.3	46
36	Stygoregions â€" a promising approach to a bioregional classification of groundwater systems. Scientific Reports, 2012, 2, 673.	1.6	46

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37	Combining DAPI and SYBR Green II for the Enumeration of Total Bacterial Numbers in Aquatic Sediments. International Review of Hydrobiology, 2001, 86, 453-465.	0.5	45
38	Grazing of heterotrophic flagellates on viruses is driven by feeding behaviour. Environmental Microbiology Reports, 2014, 6, 325-330.	1.0	45
39	Defining lower limits of biodegradation: atrazine degradation regulated by mass transfer and maintenance demand in Arthrobacter aurescens TC1. ISME Journal, 2019, 13, 2236-2251.	4.4	43
40	Changing Paradigms in Groundwater Ecology â€“ from the â€˜Living Fossils' Tradition to the â€˜New Groundwater Ecologyâ€™. International Review of Hydrobiology, 2008, 93, 565-577.	0.5	39
41	Towards evidenceâ€based conservation of subterranean ecosystems. Biological Reviews, 2022, 97, 1476-1510.	4.7	39
42	Aquifer recharge viewed through the lens of microbial community ecology: Initial disturbance response, and impacts of species sorting versus mass effects on microbial community assembly in groundwater during riverbank filtration. Water Research, 2021, 189, 116631.	5.3	36
43	A new bioassay for the ecotoxicological testing of VOCs on groundwater invertebrates and the effects of toluene on Niphargus inopinatus. Aquatic Toxicology, 2013, 130-131, 1-8.	1.9	33
44	Enhanced viral production and infection of bacterioplankton during an ironâ€induced phytoplankton bloom in the Southern Ocean. Limnology and Oceanography, 2009, 54, 774-784.	1.6	32
45	Nonâ€random processes determine the colonization of groundwater sediments by microbial communities in a pristine porous aquifer. Environmental Microbiology, 2019, 21, 327-342.	1.8	32
46	Brazilian cave heritage under siege. Science, 2022, 375, 1238-1239.	6.0	32
47	Microbial CO2 fixation potential in a tar-oil-contaminated porous aquifer. FEMS Microbiology Ecology, 2012, 81, 172-187.	1.3	31
48	A conservation roadmap for the subterranean biome. Conservation Letters, 2021, 14, e12834.	2.8	31
49	Dimethylsulfoxide (DMSO) reduction: a new approach to determine microbial activity in freshwater sediments. Journal of Microbiological Methods, 1997, 29, 31-40.	0.7	30
50	Microbial Activity in Aquatic Environments Measured by Dimethyl Sulfoxide Reduction and Intercomparison with Commonly Used Methods. Applied and Environmental Microbiology, 2001, 67, 100-109.	1.4	30
51	Combined application of conservative transport modelling and compound-specific carbon isotope analyses to assess in situ attenuation of benzene, toluene, and o-xylene. Journal of Contaminant Hydrology, 2006, 88, 306-320.	1.6	30
52	Selection imposed by local environmental conditions drives differences in microbial community composition across geographically distinct groundwater aquifers. FEMS Microbiology Ecology, 2019, 95, .	1.3	27
53	Dynamics of Suspended and Attached Aerobic Toluene Degraders in Small-Scale Flow-through Sediment Systems under Growth and Starvation Conditions. Environmental Science & Technology, 2015, 49, 7161-7169.	4.6	26
54	Spatial distributions of sulphur species and sulphate-reducing bacteria provide insights into sulphur redox cycling and biodegradation hot-spots in a hydrocarbon-contaminated aquifer. Geochimica Et Cosmochimica Acta, 2015, 156, 207-221.	1.6	26

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55	Linkage Between Dissolved Organic Matter Transformation, Bacterial Carbon Production, and Diversity in a Shallow Oligotrophic Aquifer: Results From Flow-Through Sediment Microcosm Experiments. Frontiers in Microbiology, 2020, 11, 543567.	1.5	26
56	The D-A-(C) index: A practical approach towards the microbiological-ecological monitoring of groundwater ecosystems. Water Research, 2019, 163, 114902.	5.3	24
57	Disentangling multiple chemical and non-chemical stressors in a lotic ecosystem using a longitudinal approach. Science of the Total Environment, 2021, 769, 144324.	3.9	24
58	Response and recovery of a pristine groundwater ecosystem impacted by toluene contamination â€“ A meso-scale indoor aquifer experiment. Journal of Contaminant Hydrology, 2017, 207, 17-30.	1.6	22
59	Contaminant concentration versus flow velocity: drivers of biodegradation and microbial growth in groundwater model systems. Biodegradation, 2018, 29, 211-232.	1.5	22
60	Title is missing!. Water, Air and Soil Pollution, 2002, 2, 137-163.	0.8	21
61	Groundwater Microbial Communities in Times of Climate Change. Current Issues in Molecular Biology, 2021, 41, 509-538.	1.0	21
62	Chemotaxis increases vertical migration and apparent transverse dispersion of bacteria in a benchâ€scale microcosm. Biotechnology and Bioengineering, 2011, 108, 2070-2077.	1.7	20
63	Quantification of aquatic sediment prokaryotesâ€"A multiple-steps optimization testing sands from pristine and contaminated aquifers. Limnologica, 2016, 56, 6-13.	0.7	20
64	The Human Virome Protein Cluster Database (HVPC): A Human Viral Metagenomic Database for Diversity and Function Annotation. Frontiers in Microbiology, 2018, 9, 1110.	1.5	20
65	Phenotypic heterogeneity as key factor for growth and survival under oligotrophic conditions. Environmental Microbiology, 2020, 22, 3339-3356.	1.8	20
66	Rainfall as a trigger of ecological cascade effects in an Australian groundwater ecosystem. Scientific Reports, 2021, 11, 3694.	1.6	20
67	Direct Experimental Evidence of Non-first Order Degradation Kinetics and Sorption-Induced Isotopic Fractionation in a Mesoscale Aquifer: ¹³C/¹²C Analysis of a Transient Toluene Pulse. Environmental Science & Technology, 2013, 47, 6892-6899.	4.6	19
68	Dynamics of Hydrology and Anaerobic Hydrocarbon Degrader Communities in A Tar-Oil Contaminated Aquifer. Microorganisms, 2019, 7, 46.	1.6	19
69	Mass-Transfer-Limited Biodegradation at Low Concentrationsâ€"Evidence from Reactive Transport Modeling of Isotope Profiles in a Bench-Scale Aquifer. Environmental Science & Technology, 2021, 55, 7386-7397.	4.6	18
70	Catecholamine levels in groundwater and stream amphipods and their response to temperature stress. General and Comparative Endocrinology, 2013, 194, 110-117.	0.8	17
71	Intrinsic potential for immediate biodegradation of toluene in a pristine, energy-limited aquifer. Biodegradation, 2014, 25, 325-336.	1.5	17
72	Microbial and viral pathogens in freshwater: current research aspects studied in Germany. Environmental Earth Sciences, 2016, 75, 1.	1.3	16

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73	Groundwater Ecosystems and Their Services: Current Status and Potential Risks. , 2019, , 197-203.		16
74	Groundwater fauna downtown â€“ Drivers, impacts and implications for subsurface ecosystems in urban areas. Journal of Contaminant Hydrology, 2022, 248, 104021.	1.6	16
75	Tracking down carbon inputs underground from an arid zone Australian calcrete. PLoS ONE, 2020, 15, e0237730.	1.1	14
76	Substrate-dependent CO2 fixation in heterotrophic bacteria revealed by stable isotope labelling. FEMS Microbiology Ecology, 2020, 96, .	1.3	14
77	Fringe-controlled biodegradation under dynamic conditions: Quasi 2-D flow-through experiments and reactive-transport modeling. Journal of Contaminant Hydrology, 2015, 172, 100-111.	1.6	13
78	Dynamics of pathogens and fecal indicators during riverbank filtration in times of high and low river levels. Water Research, 2022, 209, 117961.	5.3	11
79	Making waves: Pulling the plugâ€"Climate change effects will turn gaining into losing streams with detrimental effects on groundwater quality. Water Research, 2022, 220, 118649.	5.3	11
80	Title is missing!. Water, Air and Soil Pollution, 2002, 2, 33-62.	0.8	8
81	Efforts of the European Commission to Improve Communication between Environmental Scientists and Policy-makers. Environmental Science and Pollution Research, 2006, 13, 138-139.	2.7	8
82	Bottom-Up Control of the Groundwater Microbial Food-Web in an Alpine Aquifer. Frontiers in Ecology and Evolution, 0, 10, .	1.1	8
83	Chapter 11.2. Incorporation of Groundwater Ecology in Environmental Policy. , 2007, , 671-689.		7
84	Small rain events during drought alter sediment dissolved organic carbon leaching and respiration in intermittent stream sediments. Biogeochemistry, 2022, 159, 159-178.	1.7	6
85	Detection of catecholamines in single specimens of groundwater amphipods. Analytical and Bioanalytical Chemistry, 2013, 405, 5571-5582.	1.9	5
86	Evaluating the performance of water purification in a vegetated groundwater recharge basin maintained by short-term pulsed infiltration events. Water Science and Technology, 2015, 72, 1912-1922.	1.2	5
87	Experimental desiccation indicates high moisture content maintains hyporheic biofilm processes during drought in temperate intermittent streams. Aquatic Sciences, 2021, 83, 1.	0.6	4
88	Application of the D-A-(C) index as aÂsimple tool for microbial-ecological characterization and assessment of groundwater ecosystemsâ€"aÂcase study of the Mur River Valley, Austria. Osterreichische Wasser- Und Abfallwirtschaft, 2021, 73, 455-467.	0.3	4
89	Mini Sediment Columns and Two-Dimensional Sediment Flow-Through Microcosms: Versatile Experimental Systems for Studying Biodegradation of Organic Contaminants in Groundwater Ecosystems. Springer Protocols, 2016, , 153-172.	0.1	3
90	Microbial Biodiversity in Groundwater Ecosystems. , 2022, , 397-411.		3

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91	Attachment, re-mobilization, and inactivation of bacteriophage MS2 during bank filtration following simulation of a high virus load and an extreme rain event. Journal of Contaminant Hydrology, 2022, 246, 103960.	1.6	3
92	Groundwater ecosystems: human impacts and future management. , 0, , 30-44.		2
93	Knowledge Gaps, Obstacles, and Research Frontiers in Groundwater Microbial Ecology. , 2022, , 611-624.		2
94	Heavy rainfall following a summer drought stimulates soil redox dynamics and facilitates rapid and deep translocation of glyphosate in floodplain soils. Environmental Sciences: Processes and Impacts, 2022, , .	1.7	2
95	Subsurface microbiology: the life below our feet. FEMS Microbiology Ecology, 2012, 81, 1-1.	1.3	1
96	Spatial and Annual Variation in Microbial Abundance, Community Composition, and Diversity Associated With Alpine Surface Snow. Frontiers in Microbiology, 2021, 12, 781904.	1.5	1
97	Toward Improved Bioremediation Strategies: Response of BAM-Degradation Activity to Concentration and Flow Changes in an Inoculated Bench-Scale Sediment Tank. Environmental Science & Technology, 2022, 56, 4050-4061.	4.6	1
98	Vom Leben unter unseren FÃ¼ÃŸen. Grundwasser, 2013, 18, 91-91.	1.4	0
99	Presence and Role of Prokaryotic Viruses in Groundwater Environments. , 2021, , .		0
100	Tracking down carbon inputs underground from an arid zone Australian calcrete. , 2020, 15, e0237730.		0
101	Tracking down carbon inputs underground from an arid zone Australian calcrete. , 2020, 15, e0237730.		0
102	Tracking down carbon inputs underground from an arid zone Australian calcrete. , 2020, 15, e0237730.		0
103	Tracking down carbon inputs underground from an arid zone Australian calcrete. , 2020, 15, e0237730.		0